

DATE: April 19, 2006

TO: Office of Drinking Water Staff

THROUGH: J. Wesley Kleene, Ph.D., P.E., Director
Office of Drinking Water

FROM: Michael Williams
Small Systems Coordinator

SUBJECT: Water – Procedure - Sample Collection – Bacteriological Samples at TNC
Waterworks

RELATED: WM861 (TNC Manual)

SUMMARY STATEMENT:

This memo alters policy on the timing of routine bacteriological sampling after a positive sample at TNC waterworks, to conform to existing federal standards.

BACKGROUND:

Guidance found in §8.02.03 and Appendix S of the Transient Noncommunity Waterworks Procedures Manual (Working Memo 861, dated December 17, 2002) indicates that TNCs that have produced a positive bacteriological sample during routine quarterly sampling are to collect five routine samples during the next calendar quarter. This policy contradicts requirements found in the National Primary Drinking Water Regulations [40CFR141.21(b)(5)], and in §12VAC5-590-380(D)(5) of the Virginia *Waterworks Regulations*.

NEW POLICY:

Effective immediately, the timing of bacteriological sampling at TNC waterworks shall be performed as follows:

Most TNCs continue to be eligible to collect one bacteriological sample for presence/absence analysis per calendar quarter. Except for this timing exception, all other compliance bacteriological sampling at TNCs must now conform to requirements for community and NTNC waterworks. In the event of a positive result, TNCs must collect four repeat samples within 24 hours of notification, and must collect five routine samples at evenly spaced intervals at approved locations during the following month. As is the case at other waterworks types, once triggered the increased monthly sampling at TNCs continues in subsequent months, until all five samples are negative for coliform bacteria.

The bacteriological sampling guidance in the Transient Noncommunity Waterworks Procedures Manual (§8.02.03, and Appendix S [pp. 69 through 71]) is to be disregarded, pending future

revision of the Manual. The manual sections and pages to be disregarded all show the edition date of December 2002 in the page header.

RESUMPTION OF NORMAL SAMPLING:

If results from all five monthly routine samples are satisfactory, the waterworks will resume collecting one routine bacteriological sample per calendar quarter during the next full calendar quarter.

EXAMPLE At Waterworks A an initial positive sample in January triggered four repeat samples within 24 hours of notification, and five routine samples in February. Because all five February samples were satisfactory, Waterworks A resumes collecting one sample per quarter between April 1 and June 30.

EXAMPLE Waterworks B delayed collection of its routine sample for the first calendar quarter until March. The March sample was positive, triggering the requirement to collect four repeat samples within 24 hours of notification, and five routine samples during April. Because all five April samples were satisfactory, the waterworks will resume collecting one routine sample per quarter between July 1 and September 30.

EXCEPTION FOR TNCs WITH SHORTENED ANNUAL OPERATING PERIODS

Some TNCs operate with abbreviated annual operating periods, and may be exempted from the requirement to perform additional routine sampling after an initial positive sample under some circumstances. In these cases the systems do not incur monitoring violations, and should not be issued NOVs.

EXAMPLE A TNC campground collected a positive routine quarterly sample in October, and it must collect four repeat samples during October, within 24 hours of notification. Under the new policy it would normally be required to collect five routine samples in November. However, the system ceases normal operation on October 31: its infrastructure is winterized, it produces no water, and its service population falls to zero effective November 1. This system would be exempt from the requirement to collect samples in November, though the system will still need to conduct bacteriological sampling prior to resuming service to consumers in April of the following year. If the system's annual operating period is shortened merely because it closes to customers, but it still produces water (for service to office staff, or resident caretakers, for example) it should proceed with collection of the additional routine samples during the following month.

IMPACT ON PROCEDURES:

The adoption of the new policy has several procedural implications:

1. The program for placing *ad hoc* orders for bacteriological kits has been modified, and no longer accommodates a user request for kits to be prepared for the next calendar quarter. All *ad hoc* bacteriological kit orders are now processed by calendar month only.
2. Effective with the release of R&R version 5.12a, installed during the week of March 20, 2006, bacteriological compliance reports found on the R&R Main Menu/District Systems tab have been modified to reflect the change in policy.
 - The “NC Bacti NOV” report shows only major monitoring violations for TNCs required to collect one routine bacteriological per quarter (i.e., TNCs serving populations of 1,000 or less, that failed to collect their regularly scheduled quarterly sample).
 - The “Monthly Bacti NOV” report shows bacteriological MCL violations for all system types, and bacteriological monitoring violations (major and minor) for all system types with monthly monitoring requirements – including TNCs that are temporarily required to collect additional routine samples in the month immediately following a positive sample. The report flags TNC systems serving populations greater than 1000 with a capital “T,” and flags all other TNCs with a lowercase “t.”
3. Most Bacteriological Sample Siting Reports (BSSRs) approved for TNCs prior to the new policy’s adoption are effectively outmoded by the new policy, and must eventually be amended. The effort to obtain owner signatures and prepare new BSSRs should be made in conjunction with routine sanitary surveys. A revised model BSSR for TNCs is provided in Appendix A.

Until an amended BSSR is obtained, when a waterworks is apprized of follow-up sampling requirements in the aftermath of a positive sample, they should be advised that compliance will be determined in accordance with the new policy, and not on the basis of requirements described in the erroneous BSSR.

END OF MEMO

Appendix A

BACTERIOLOGICAL SAMPLE SITING PLAN

(Name of Waterworks)

1. This waterworks is currently required to collect ____ water sample(s) for coliform analysis each month / calendar quarter. The sample location(s) are identified below:

Routine and Repeat Sample Site	
Code	Location

2. When a positive coliform bacteria result occurs, four (4) repeat samples are required within 24 hours of notification. These samples shall be collected from approved sample locations. If only one tap is available, the samples shall be collected over a four-day period (one sample per day), or all four samples may be collected on the same day. If more than one approved tap is available, repeat samples shall be collected from the approved taps.
3. When a positive coliform bacteria result occurs, five (5) routine samples are required in the next month. These samples shall be collected from approved sample locations, at evenly spaced intervals during the month.

(Signature of Owner)

(Date)